

The Scientific Method

1. Question and Title: What do you want to find out? After you determine what question you want to answer, give your project a title that describes what your investigation will deal with.

2. Hypothesis: Predict what the answer to your question will be.

3. Experimental Procedure: Design an experiment to test your hypothesis. Make a step-by step list of what you will do. Select only one thing to change in your experiment that will help you test your hypothesis. Things that change or can be changed are called variables. If you keep all but one of the variables the same throughout your experiment, you will be able to conclude that any changes you observe were the result of the variable you changed.

4. Materials: List all the materials and/or equipment you will need for your experiment.

5. Conduct your Experiment and Record Data: Do your experiment using the procedure you designed, and record your results using the appropriate measurements.

6. Present your Data: Organize and present your results in a form that is easy to understand. Make a data table, a graph, or a chart to show the data you collected. You may also want to use diagrams and/or photographs. Describe how you conducted your experiment. Include how often you took measurements or made observations, what you measured or observed, and the variables that you kept the same.

7. Conclusions: Look at your data and decide if your hypothesis is true or false (either result is okay). Try to explain the results. If your hypothesis is false, do you have any ideas what the answer to your question may be? Can you apply your results to any real life situations? Describe any problems you had or other things you learned.